

REMARKS

In view of the amendments proposed above, Applicants respectfully request consideration of the following remarks.

Anticipation Rejections Under 35 U.S.C. § 102

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Anticipation Rejection Based on United States Patent 6,380,629 to Kim

Claims 1, 2, 5, 7, 13, 14, 20, and 22 were rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent 6,380,629 to Kim (hereinafter “Kim”). Applicants respectfully traverse this rejection as set forth below.

Kim discloses a first wafer 10 having bond pads 11 and a second wafer 20 having bond pads 21. Metal leads 31 are coupled to each bond pad 11, and each of these leads 31 extends away from its bond pad 11. Similarly, metal leads 32 are coupled to each bond pad 21, and each of these leads 32 extends away from its bond pad 21. The ends of the leads 31 (i.e., the ends distant from bond pads 11) on first wafer 10 are electrically connected with the ends of the leads 32 (i.e., the ends distant from bond pads 21) on second wafer 20 by another layer of metal 33. See FIG. 13 of Kim and the text at column 3, line 61 through column 5, line 60.

Neither the bond pads 11, 21 of the wafers 10, 20, respectively, nor their respective metal leads 31, 32 are placed in **direct** contact for bonding (since no bonding is performed between these elements, as it is the subsequently deposited layer of metal 33 that forms an electrical connection). Thus, Kim does not disclose the embodiments claimed in each of independent claims 1 and 13, as amended, and each of these claims is novel in view of Kim. Also, claims 2, 5, and 7 are allowable as depending from novel independent claim 1, and claims 14, 20, and 22 are allowable as depending from novel independent claim 13.

Obviousness Rejections Under 35 U.S.C. § 103

To reject a claim or claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a prima facie case of obviousness. M.P.E.P. § 2142. When establishing a prima facie case of obviousness, the Examiner must set forth evidence showing that the following three criteria are satisfied:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references (or references when combined) must teach or suggest all the claim limitations. M.P.E.P. § 2143.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's disclosure. M.P.E.P. § 2142 (citing *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991)). Also, the evidentiary showing of a motivation or suggestion to combine

prior art references “must be clear and particular.” *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999).

Obviousness Rejection Based on United States Patent 6,380,629 to Kim in View of United States Patent 6,329,722 to Shih et al.

Claims 3, 4, 6, 15, and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of United States Patent 6,329,722 to Shih et al. (hereinafter “Shih”). Applicants respectfully traverse this rejection as set forth below.

As noted above, Kim fails to disclose at least the above-noted limitations of independent claims 1 and 13. Shih, either individually or in combination with Kim, also fails to disclose all limitations of independent claims 1 and 13. If an independent claim is nonobvious, then any claim depending from the independent claim is also nonobvious. M.P.E.P. §2143.03 (citing *In re Fine*, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988)). Therefore, claims 3, 4, and 6 allowable as depending from nonobvious independent claim 1, and claims 15 and 21 are allowable as depending from nonobvious independent claim 13.

Obviousness Rejection Based on United States Patent 6,380,629 to Kim in View of United States Patent Application 2002/0027294 to Neuhaus et al.

Claims 8-11, 16, 17, and 23-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of United States Patent Application 2002/0027294 to Neuhaus et al. (hereinafter “Neuhaus”). Applicants respectfully traverse this rejection as set forth below.

As noted above, Kim fails to disclose at least the above-noted limitations of independent claims 1 and 13. Neuhaus, either individually or in combination with Kim, also fails to disclose all limitations of independent claims 1 and 13. If an independent claim is nonobvious, then any claim depending from the independent claim is also nonobvious. M.P.E.P. §2143.03 (citing *In re Fine*, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988)). Therefore, claims 8-11 allowable as depending from nonobvious independent claim 1, and claims 16, 17, and 23-26 are allowable as depending from nonobvious independent claim 13.

Obviousness Rejection Based on United States Patent 6,380,629 to Kim in View of United States Patent 6,324,754 to DiStefano et al.

Claim 19 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of United States Patent 6,324,754 to DiStefano et al. (hereinafter “DiStefano”). Applicants respectfully traverse this rejection as set forth below.

As noted above, Kim fails to disclose at least the above-noted limitations of independent claim 13. DiStefano, either individually or in combination with Kim, also fails to disclose all limitations of independent claim 13. If an independent claim is nonobvious, then any claim depending from the independent claim is also nonobvious. M.P.E.P. §2143.03 (citing *In re Fine*, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988)). Therefore, claim 19 is allowable as depending from nonobvious independent claim 13.

Claim Objections - Allowable Subject Matter

Claims 12 and 27 were objected to as being dependent upon a rejected base claim, but each of these claims would be allowable if rewritten in independent form. Office Action, at page 8. As set forth above, each of independent claims 1 and 13 is patentable in view of the cited prior art. Thus, Applicants submit that each of claims 12 and 27 is patentable as written in dependent form.

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CONCLUSION

Applicants submit that claims 1-27 are in condition for allowance and respectfully request allowance of such claims.

Please charge any shortages and credit any overages to Deposit Account
No. 02-2666.

Respectfully submitted,

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